

10/587764

AP20 Rec'd PCT/PTO 28 JUL 2006

What is claimed is:

1. (original) A method for operating an internal combustion engine with a fuel injector (18) that is opened and closed electrically, a booster capacitor (BK) serving to increase the current intensity when the fuel injector (18) is opened, wherein,

in certain operating states of the internal combustion engine, the current profile of the booster current is switched from a standard value to an increased value and/or to a longer duration and, when the certain operating state ends, it is reset to the standard value and the standard duration.

2. (original) The method as recited in Claim 1, wherein,

during a starting procedure of the internal combustion engine, the current profile of the booster current is switched from the standard value to the increased value and/or to a longer duration, and, upon transition back to normal operation, it is reset to the standard value.

3. (currently amended) The method as recited in ~~one of the preceding Claims~~ Claim 1, wherein,

when an overrun condition ends, the current profile of the booster current is switched from the standard value to the increased value and/or to a longer duration, and, upon transition back to normal operation, it is reset to the standard value.

4. (currently amended) The method as recited in ~~one of the preceding Claims~~ Claim 1, wherein

the current profile of the booster current is switched to a longer duration by applying multiple booster pulses.

5. (currently amended) The method as recited in ~~one of the preceding Claims~~

Claim 1,

wherein

the switch between the standard value and the increased value takes place within one injection cycle.

6. (currently amended) The method as recited in ~~one of the preceding Claims~~
Claim 1,

wherein

the current profile of the booster current is switched from the increased value or the longer duration to the standard value and the standard duration when the rail pressure falls below a lower threshold.

7. (currently amended) The method as recited in ~~one of the preceding Claims~~
Claim 1,

wherein

the current profile of the booster current is switched from the increased value or the longer duration to the standard value and the standard duration when the number of injections with the increased value of the booster current exceeds a maximum value.

8. (currently amended) The method as recited in ~~one of the preceding Claims~~
Claim 1,

wherein

the current profile of the booster current is switched from the increased value or the longer duration to the standard value and duration as soon as the voltage of the booster capacitor (BK) falls below a lower threshold.

9. (original) An internal combustion engine with a fuel injector (18) that can be opened and closed electrically, a reversible booster capacitor (BK) serving to increase the current intensity when the fuel injector (18) is opened,

wherein

the current profile of the booster current is switchable from a standard value to an

increased value and/or to a longer duration.

10. (currently amended) The internal combustion engine as recited in the preceding ~~Claim~~ Claim 9,

wherein

the booster capacitor (BK) is charged by a reload circuit (NLK).